

Applicant(s) : Wei et al.  
U.S. Serial No.: 10/650,365  
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Amendments To The Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-47. (Canceled)

48. (New) A recombinant interferon encoded by a polynucleotide having a sequence of SEQ ID NO:1 or 3, wherein the recombinant interferon has an amino acid sequence of SEQ ID NO:2 or 4, and the recombinant interferon has different spatial configuration and enhanced biological activity as compared to an interferon having an amino acid sequence of SEQ ID NO:2 or 4 but is not encoded by SEQ ID NO:1 or 3.
49. (New) The recombinant interferon of claim 48, wherein the recombinant interferon directly inhibits DNA duplication and secretion of HBsAg and HBeAg of Hepatitis B Virus.
50. (New) A composition comprising the recombinant interferon of claim 48.
51. (New) A pharmaceutical composition comprising the recombinant interferon of claim 48 and a pharmaceutically acceptable carrier.
52. (New) A recombinant interferon produced by a method comprising:  
introducing into an appropriate host cell a polynucleotide comprising SEQ ID NO:1 or 3 that encodes a recombinant interferon;

culturing the host cell in an appropriate condition for the expression of the polynucleotide; and harvesting the recombinant interferon, wherein the recombinant interferon has an amino acid sequence of SEQ ID NO:2 or 4, and the recombinant interferon has different spatial configuration and enhanced biological activity as compared to an interferon having an amino acid sequence of SEQ ID NO:2 or 4 but is not encoded by SEQ ID NO:1 or 3.

53. (New) The recombinant interferon of claim 52, wherein interferon is expressed with a special promoter.
54. (New) The recombinant interferon of claim 53, wherein the promoter is P<sub>BAD</sub>.
55. (New) The recombinant interferon of claim 52, wherein its polynucleotide is artificially synthesized cDNA, adjusted according to codon preference of *E. Coli*.
56. (New) The recombinant interferon of claim 52, wherein the harvesting step comprises extraction of super-compound interferon from fermentation broth, collection of inclusion body, denaturation and renaturation of the harvested protein.
57. (New) The recombinant interferon of claim 52, wherein the method maintains the high efficacy even when the super-compound interferon is used with an agent and in a particular concentration.

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58. (New) The recombinant interferon of claim 52, wherein, the harvesting step comprises separation and purification of the super-compound interferon.
59. (New) The recombinant interferon of claim 52, wherein the harvesting step comprises lyophilization of the purified super-compound interferon.
60. (New) The recombinant interferon of claim 52, wherein the recombinant interferon directly inhibits DNA duplication and secretion of HBsAg and HBeAg of Hepatitis B Virus.
61. (New) A composition comprising the recombinant interferon of claim 52.
62. (New) A pharmaceutical composition comprising the recombinant interferon of claim 52 and a pharmaceutically acceptable carrier.